

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A computer-implemented method for generating an audio-based form represented electronically as a digital audio file, the audio-based form including one or more data fields, the method comprising:

defining zoning information identifying a temporal location and temporal dimensions of the one or more data fields of the audio-based form;

defining structural information including a name for each of the one or more data fields and a description of a type of user data expected to be provided for each of the one or more data fields, where the audio-based form comprises audio signals recording a voice speaking a name of a data field followed by a pause during which a user can speak the user data expected to be provided for the data field;

encoding the zoning and structural information in one or more audio signals; and

incorporating the one or more audio signals including the encoded zoning and structural information into the audio-based form.

2-10. (Cancelled)

11. (Previously Presented) The method of claim 1, wherein data entered on the form by a user can be extracted from the audio-based form based on the encoded zoning and structural information without access to a source of zoning or structural information external to the form.

12. (Currently Amended) A computer-implemented method for creating an audio-based form represented electronically as a digital audio file, the audio-based form including one or more data fields, the method comprising:

generating a form definition defining the audio-based form, the form definition including zoning information identifying a temporal location and temporal dimensions of the one or more

data fields and structural information including a name for each of the one or more data fields and a description of a type of user data expected to be provided for each of the one or more data fields, where the audio-based form comprises audio signals recording a voice speaking a name of a data field followed by a pause during which a user can speak the user data expected to be provided for the data field;

encoding the zoning and structural information into one or more audio signals; and
incorporating the one or more audio signals including the encoded zoning and structural information into the audio-based form;

wherein audio data entered into the audio-based form by a user can be extracted from the audio-based form based on the encoded zoning and structural information without access to a source of zoning or structural information external to the audio-based form.

13. (Withdrawn) A computer-implemented method comprising:

receiving an electronic representation of a form including user data associated with one or more data fields, the form incorporating zoning information identifying a location of the one or more data fields and structural information about the one or more data fields, the zoning and structural information encoded according to a symbology defined by rules for encoding information in a medium in which the form is presented to a user;

decoding the zoning and structural information; and
extracting the user data from the electronic representation of the form using the decoded zoning and structural information without access to a source of zoning or structural information external to the electronic representation of the form.

14. (Withdrawn) The method of claim 13, wherein the medium is a visual medium and the electronic representation of the form comprises a PDF file.

15. (Withdrawn) The method of claim 13, wherein the medium is a visual medium and the electronic representation of the form comprises a TIFF file.

16. (Withdrawn) The method of claim 13, wherein the medium is an audio medium and the electronic representation of the form comprises a digital audio file.

17. (Withdrawn) The method of claim 13, wherein the medium is a visual medium and the encoded zoning and structural information comprises a graphical symbol.

18. (Withdrawn) The method of claim 17, wherein the graphical symbol is a two-dimensional symbol.

19. (Withdrawn) The method of claim 18, wherein the two-dimensional symbol is a two-dimensional barcode.

20. (Withdrawn) The method of claim 13, wherein the medium is an audio medium and the encoded zoning and structural information comprises an audio signal.

21. (Withdrawn) The method of claim 13, wherein the zoning and structural information is represented in XML.

22. (Currently Amended) A computer-implemented method for creating an audio-based form represented electronically as a digital audio file, the audio-based form including one or more data fields, the method comprising:

generating a form definition defining the audio-based form, the form definition including zoning information identifying a temporal location and temporal dimensions of the one or more data fields, where the audio-based form comprises audio signals recording m a voice speaking a name of a data field followed by a pause during which a user can speak the user data expected to be provided for the data field;

encoding the zoning information in one or more audio signals; and
incorporating the one or more audio signals including the encoded zoning information into the audio-based form;

wherein data entered into the audio-based form by a user can be extracted from the audio-

based form based on the encoded zoning information without access to a source of zoning information external to the audio-based form.

23. (Cancelled)

24. (Currently Amended) A computer program product, tangibly stored on a computer-readable medium, for generating an audio-based form represented electronically as a digital audio file, the audio-based form including one or more data fields, comprising instructions operable to cause a programmable processor to:

define zoning information identifying a temporal location and temporal dimensions of the one or more data fields of the form;

define structural information including a name for each of the one or more data fields and a description of a type of user data expected to be provided for each of the one or more data fields, where the audio-based form comprises audio signals recording a voice speaking a name of data field followed by a pause during which a user can speak the user data expected to be provided for the data field;

encode the zoning and structural information into one or more audio signals; and

incorporate the one or more audio signals including the encoded zoning and structural information into the audio-based form.

25-33. (Cancelled)

34. (Previously Presented) The computer program product of claim 24, wherein data entered on the audio-based form by a user can be extracted from the audio-based form based on the encoded zoning and structural information without access to a source of zoning or structural information external to the audio-based form.

35. (Currently Amended) A computer program product, tangibly stored on a computer-readable medium, for creating an audio-based form represented electronically as a digital audio file, the audio-based form including one or more data fields, comprising instructions operable to cause a programmable processor to:

generate a form definition defining the audio-based form, the form definition including zoning information identifying a temporal location and temporal dimensions of the one or more data fields and structural information including a name for each of the one or more data fields and a description of a type of user data expected to be provided for each of the one or more data fields, where the audio-based form comprises audio signals recording a voice speaking a name of data field followed by a pause during which a user can speak the user data expected to be provided for the data field;

encode the zoning and structural information into one or more audio signals; and
incorporate the one or more audio signals including the encoded zoning and structural information into the audio-based form;

wherein data entered into the form by a user can be extracted from the audio-based form based on the encoded zoning and structural information without access to a source of zoning or structural information external to the audio-based form.

36. (Withdrawn) A computer program product, tangibly stored on a computer-readable medium, comprising instructions operable to cause a programmable processor to:

receive an electronic representation of a form including user data associated with one or more data fields, the form incorporating zoning information identifying a location of the one or more data fields and structural information about the one or more data fields, the zoning and structural information encoded according to a symbology defined by rules for encoding information in a medium in which the form is presented to a user;

decode the zoning and structural information; and
extract the user data from the electronic representation of the form using the decoded zoning and structural information without access to a source of zoning or structural information external to the electronic representation of the form.

37. (Withdrawn) The computer program product of claim 36, wherein the medium is a visual medium and the electronic representation of the form comprises a PDF file.

38. (Withdrawn) The computer program product of claim 36, wherein the medium is a visual medium and the electronic representation of the form comprises a TIFF file.

39. (Withdrawn) The computer program product of claim 36, wherein the medium is an audio medium and the electronic representation of the form comprises a digital audio file.

40. (Withdrawn) The computer program product of claim 36, wherein the medium is a visual medium and the encoded zoning and structural information comprises a graphical symbol.

41. (Withdrawn) The computer program product of claim 40, wherein the graphical symbol is a two-dimensional symbol.

42. (Withdrawn) The computer program product of claim 41, wherein the two-dimensional symbol is a two-dimensional barcode.

43. (Withdrawn) The computer program product of claim 36, wherein the medium is an audio medium and the encoded zoning and structural information comprises an audio signal.

44. (Withdrawn) The computer program product of claim 36, wherein the zoning and structural information is represented in XML.

45. (Currently Amended) A computer program product, tangibly stored on a computer-readable medium, for creating an audio-based form represented electronically as a digital audio file, the audio-based form including one or more data fields, comprising instructions operable to cause a programmable processor to:

generate a form definition defining the audio-based form, the form definition including zoning information identifying a temporal location and temporal dimensions of the one or more data fields, where the audio-based form comprises audio signals recording a voice speaking a name of a data field followed by a pause during which a user can speak the user data expected to be provided for the data field;

encode the zoning information into one or more audio signals; and

incorporate the one or more audio signals including the encoded zoning information into the audio-based form;

wherein data entered into the audio-based form by a user can be extracted from the audio-based form based on the encoded zoning information without access to a source of zoning information external to the form.

46. (Cancelled)

47. (Previously Presented) The method of claim 1, further comprising:

encoding instructions indicating where and how to transmit user data extracted from the audio-based form into one or more audio signals; and

incorporating the one or more audio signals including the encoded instructions into the audio-based form.

48. (Previously Presented) The method of claim 12, further comprising:

encoding instructions indicating where and how to transmit user data extracted from the audio-based form into one or more audio signals; and

incorporating the one or more audio signals including the encoded instructions into the audio-based form.

49. (Previously Presented) The method of claim 22, further comprising:

encoding instructions indicating where and how to transmit user data extracted from the audio-based form into one or more audio signals; and

incorporating the one or more audio signals including the encoded instructions into the audio-based form.

50. (Previously Presented) The computer program product of claim 24, further comprising instructions operable to cause a programmable processor to:

encode instructions indicating where and how to transmit user data extracted from the audio-based form into one or more audio signals; and

incorporate the one or more audio signals including the encoded instructions into the audio-based form.

51. (Previously Presented) The computer program product of claim 35, further comprising instructions operable to cause a programmable processor to:

encode instructions indicating where and how to transmit user data extracted from the audio-based form into one or more audio signals; and

incorporate the one or more audio signals including the encoded instructions into the audio-based form.

52. (Previously Presented) The computer program product of claim 45, further comprising instructions operable to cause a programmable processor to:

encode instructions indicating where and how to transmit user data extracted from the audio-based form into one or more audio signals; and

incorporate the one or more audio signals including the encoded instructions into the audio-based form.